# European Container Trade, 2021, Q1 Examination of container trade in 2021



# European Container Trade, 2021 Q1, 2021

Sean Newton, 2021, NTP Research, The Hague, Netherlands.

## Background

This article examines the monthly pattern of containerised trade in the first quarter of 2021, using EU (COMEXT) trade data to estimate the quantity of tonnes moved by container. See [4]. The database covers EU trade with non-EU countries, and this article focuses on trade to and from the central region of continental Europe, i.e. trade to and from eight EU Member States:

Belgium	
Netherlands	en e
Luxembourg	Kotter dam Artivepen
France	and the states
Germany	
Italy	Carros and
Austria	
Czech Republic	Con Tarro

Table 1: Scope of the analysis - Containerised Trade into and out of Central Europe

(Switzerland is not covered as a reporting country by EU trade data.)

At the time of writing, June 2021, the first (COMEXT) trade dataset covering the first four months of 2021 has just been released by Eurostat, making it possible to examine in detail the ongoing disruptions to global economic trade flows, and their impact upon the container sector in Europe.

Many of the economic analyses of the 2020/2021 crisis focus on trade value (Euros), so the method here, is to look at the impact in terms of trade tonnages, by comparing monthly data for 2020 and 2021 against the equivalent periods in previous (prepandemic) years. We then compare these trade trends against port throughput data obtained from the largest container ports serving the region. This article updates the previous quarterly analyses for 2020 (See [5],[6], and [7]). The aim of this analysis is, first, to test whether it is possible to correlate trade data with port statistics at a high level, and then if so, to be able to analyse the trends in more depth by comparing changes across different geographical markets and different commodity sector.

### Method

The basis for this analysis is the monthly trade data published by Eurostat. These databases are primarily used to record imports and exports per country pair and per commodity in terms of trade value, but they also record information about trade volumes which can be used for analysis of physical cargo flows. In fact Eurostat records whether trade tonnages are containerised or not, but as set out in previous articles, there are significant inconsistencies in terms of coverage per Member State for this information, so to solve this data gap, a detailed set of containerisation factors were calculated and applied. This method has been used throughout this article. See [3] and [4]. Note that throughout the article the trade quantities being analysed are measured in containerised tonnes, and we therefore focus on deep-sea trade into and out of Central Europe.

## **Results**

Monthly data summarising the three-year period January 2018 to December 2020 is shown below, by trade direction. In each case the flows cover trade between the eight central European countries and non-EU trade partners<sup>1</sup>. The tables show monthly tonnages per direction (in thousands), and each table shows an index comparing 2021 values with average of 2018 and 2019. An index figure of 100 means that 2021 levels are at their "normal" or pre-pandemic level. We are therefore using these indices to see if 2021 volumes are still significantly affected by the crisis. 2020 figures are also included for reference.

<sup>&</sup>lt;sup>1</sup> 'Exports' are flows from Central Europe to other world regions. 'Imports' are flows from other world regions into Central Europe.

### **Containerised Tonnes**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TOTAL
2018	9 <i>,</i> 855	9,700	10,378	9,627	9,975	10,141	10,179	9,597	9,661	11,147	9,848	9,031	119,137
2019	9,788	9,687	10,431	10,290	10,408	9,195	10,569	9,602	10,269	11,212	9,929	9,369	120,749
2020	9,841	10,204	10,129	9,511	8,490	9,436	10,437	9,102	10,855	11,261	10,785	10,325	120,376
2021	9,704	10,064	12,035										31,804
INDEX	98.8	103.8	115.7										35.3

Table 2: Central Europe: Containerised *Export* Tonnes (000s)

Table 3: Central Europe: Containerised Import Tonnes (000s)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TOTAL
2018	9,670	8,948	9,157	8,965	9,818	9,325	9,593	9,086	8,099	9 <i>,</i> 837	8,781	7,740	109,020
2019	10,129	9,236	9,002	10,374	10,169	8,847	10,064	8,797	8,677	9,082	8,574	7,924	110,876
2020	10,058	8,451	8,713	9,434	8,360	8,384	8,571	7,837	8,552	8,719	8,403	7,516	102,997
2021	8,338	7,867	10,197										26,403
INDEX	84.2	86.5	112.3										24.0

Table 4: Central Europe: Containerised **TOTAL** Tonnes (000s)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TOTAL
2018	19,525	18,648	19,536	18,592	19,792	19,466	19,771	18,684	17,760	20,984	18,629	16,771	228,157
2019	19,918	18,923	19,433	20,664	20,577	18,042	20,633	18,399	18,946	20,294	18,503	17,293	231,625
2020	19,898	18,655	18,842	18,945	16,850	17,821	19,008	16,938	19,407	19,980	19,187	17,842	223,373
2021	18,042	17,931	22,233										58,206
INDEX	91.5	95.5	114.1										25.3

In absolute quantities, these trade flows are consistently in the region of 9-10 million containerised tonnes per month per direction, and therefore 19-20 million containerised tonnes per month for both directions together. There is not a great deal of seasonality, but holiday periods such as December and August normally have slightly lower volumes than the other months, so the benchmark levels are relatively constant from month to month.

In 2020, the year started positively in January. However in February the first signs of the COVID crisis start to become visible in the import direction. Volumes remained fairly stable, but below trend until April 2020, and then there was a substantial drop in both import and export tonnages in May 2020. In June 2020, the first signs of recovery

could be seen, with the monthly indices rising to around 95% of their normal levels, and staying close to this figure throughout most of the third quarter. Then in the fourth quarter, the recovery strengthened with volumes starting to exceed "normal" levels. By the end of the year, cumulative volumes were within just a few percentage points of 2018 and 2019 levels.

So far in 2021, the first two months have remained low, especially in the import direction, but there has been a significant up-turn in volume in March 2021. At the end of March 2021, the Suez Canal was blocked for six days by the "Ever Given" container vessel, but the impact of this has not yet appeared in the monthly trade volumes.

These aggregate results for containerised trade are shown as monthly index values for 2020 and the first three months of 2021, below, for exports (Figure 1), imports (Figure 2), and the total (Figure 3).



Figure 1: Monthly Container Trade Indices: 2020 and 2021 vs 2018/19: European Exports

Figure 2: Monthly Container Trade Indices: 2020 and 2021 vs 2018/19: European Imports





Figure 3: Monthly Container Trade Indices: 2020 and 2021 vs 2018/19: European Imports plus Exports

Starting from January 2020, volumes were close to their trend levels (=100), but then in February there was a noticeable drop in European imports. As the COVID crisis intensified in Europe in March and April 2020 there was a corresponding drop in exports, resulting in a 5% decrease overall. By May 2020, with the economic crisis spreading further around the world, the largest fall occurred. According to the trade statistics for this segment, trade volumes in tonnes fell by over 15% compared to the expected value for May, and the effect was seen for both imports and exports.

By June, however, volumes had returned to a "new normal" level, approximately 6% lower than the expected average until August. But then in September 2020, there was a marked upturn in volumes, and the situation remained positive (mainly above the 100 level) until the end of the year, meaning that some of the earlier losses were partially recovered. October is normally a busy month for container trade, so even though there was a relative decrease in October 2020, this was still one of the busiest months of the 2020 in absolute volume. It is also noticeable that the strength of European export trade was an important contributing factor towards the fourth quarter net recovery in 2020.

Cumulatively for the whole year, 2020 containerised tonnage was only down by -3.4% compared to 2019.

In 2021, exports started off close to their expected levels in January and February, and then increased sharply in March. On the other hand, import volumes were still low in January and February 2021, but again increasing sharply in March 2021. **Overall the total volume for the first three months of 2021 is very close to the levels of previous years, and only 1.4% higher than the first quarter of 2020**.

### Containerised tonnes per product group

Using the same EU dataset covering containerised traffics, the trade flows can be broken down into product groups. For this analysis, the six main NST/R product groups for containerised imports and exports have been used. As before, the index values show the relative volume of traffic in 2020 and 2021 compared to the average for the same month in 2018 and 2019. A figure below 100 indicates that traffic volumes were lower than would have been expected under normal economic conditions.

Monthly results for 2020 and 2021 exports and imports can be seen across the different commodity groups in the tables below. The commodities are ranked in descending order of tonnage, and the year-to-date containerised tonnes are shown in the right hand column. As throughout the article, the traffics being analysed cover containerised cargo traded between Central Europe and non-EU countries.

Index values lower than 85 (-15%) are highlighted in red, and values higher than 115 (+15%) are highlighted in green.

NST/R	JAN	FEB	MAR	APR	ΜΑΥ	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TONNES
Manufactures	92.6	100.9	97.9	79.9	76.0	93.2	91.6	88.8	102.4	97.1	101.3	107.6	28,196
Chemicals	97.9	93.3	92.2	101.5	78.6	90.5	91.2	87.9	93.3	86.0	104.8	114.4	24,886
Foodstuffs	98.9	100.1	97.0	106.0	89.5	97.0	100.0	92.1	109.5	94.0	102.1	113.6	24,463
Agri Products	134.7	154.1	112.2	125.8	126.5	131.1	152.4	149.1	158.7	150.0	148.2	135.0	23,234
Building Mtrls.	89.5	92.0	92.1	59.3	51.8	77.5	83.7	72.2	97.4	85.6	104.0	93.9	6,001
Metal Products	91.2	99.1	92.6	87.3	74.9	71.5	84.7	85.1	87.4	79.6	87.9	105.2	5,008
OTHERS	95.2	105.6	95.4	88.6	69.3	113.6	98.7	75.3	97.8	91.7	95.4	111.0	8,786

Table 5: Central European Containerised Exports, 2020 Index Values vs. 2018/19

Table 6: Central European Containerised Exports, 2021 Index Values vs. 2018/19

NST/R	JAN	FEB	MAR	TONNES(000s) 2021 YTD
Manufactures	99.0	102.1	108.5	7,709
Chemicals	87.9	93.4	100.0	6,633
Foodstuffs	97.1	101.7	108.0	6,261
Agri Products	122.8	139.5	180.6	5,818
Building Mtrls.	98.6	95.0	98.2	1,672
Metal Products	83.4	87.4	90.6	1,241
OTHERS	105.2	105.4	123.3	2,471

NST/R	JAN	FEB	MAR	APR	ΜΑΥ	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TONNES
Manufactures	111.4	99.7	98.4	103.0	88.4	97.6	91.4	99.6	111.6	102.6	104.9	103.4	45,808
Chemicals	93.7	104.9	96.4	95.9	79.7	96.6	79.4	78.2	89.0	84.0	93.0	92.3	18,273
Foodstuffs	94.5	99.2	106.1	96.6	93.6	99.2	93.9	85.6	103.7	92.3	92.3	98.9	13,243
Agri Products	95.6	91.7	101.4	92.2	84.1	102.9	101.3	91.2	99.9	90.4	97.6	134.2	9,908
Building Matrls.	91.6	72.1	87.8	93.9	73.7	79.4	92.2	68.4	83.6	84.9	89.4	102.8	6,251
Metal Products	91.9	82.9	80.5	74.2	51.5	77.4	66.6	72.1	61.0	68.9	74.6	85.9	4,216
OTHERS	109.7	63.9	77.6	105.7	86.6	43.1	58.2	69.2	131.6	70.5	73.6	62.7	5,528

Table 7: Central European Containerised Imports, 2020 Index Values vs 2018/19

Table 8: Central European Containerised Imports, 2021 Index Values vs 2018/19

NST/R	JAN	FEB	MAR	TONNES(000s) YTD 2021
Manufactures	89.3	96.7	128.7	12,172
Chemicals	80.8	89.4	101.0	4,480
Foodstuffs	87.0	85.5	104.9	3,159
Agri Products	90.0	89.9	105.7	2,461
Building Matrls.	65.5	78.7	84.4	1,482
Metal Products	75.9	69.6	86.0	1,167
OTHERS	74.8	47.1	113.3	1,480

Within this commodity sector analysis, imports of **manufactured goods** constitute the largest individual trade flow, and in Table 7 it can be seen that throughout 2020 volumes remained at 90% of their normal level or higher, for eleven of the twelve months, the main exception being in May 2020, when volumes were 12% down. January 2021 was also below the 90% level, but March 2021 has seen the largest increase in this sector.

Exports of manufactured goods have seen a greater negative impact than imports, with the index falling to 76 (-24%) in May 2020, but these volumes are lower in absolute figures than the import direction. In 2021 exports of manufactured goods have stayed close to their 2018/19 levels.

Trade in **chemicals** declined more (relatively) than manufactured goods, and the sector remained low especially in the import direction during the middle of 2020. Volumes of chemicals have not picked up significantly in 2021.

Imports and exports of **food products** and **agricultural goods** have been relatively strong in both directions, with food products staying close to their benchmark level, and agricultural products consistently registering gains in 2020 in the export direction. Within the category of agricultural products, much of the export cargo comes from the

forest products, pulp and paper sectors. The growth seen in this sector is the continuation part of a longer-term trend, and does not appear to be specifically related to unusual circumstances in 2020 and 2021. Exported foodstuffs include animal feed, meat and dairy products, and beer.

Moving into the industrial (rather than consumer) oriented sectors such as trade in building materials (and other crude minerals), and metal products, the negative impact of the crisis is more visible. Exports of **building materials** were more than 15% lower than the benchmark for five of the twelve months of 2020 and at certain points coming close to 50% of their normal value. Imports of **metal products** were also severely affected with volumes at least 15% lower for ten of the twelve months of 2020, no doubt reflecting disruption in both European and overseas industrial production. These sectors remain low, especially in the import direction.

### **Containerised tonnes per region**

The same dataset was then analysed to look at the pattern of containerised trade with various world regions. Table 9 to Table 12 show the index values for 2020 and 2021 compared to the average of 2018 and 2019. As before, index values lower than 85 (-15%) are highlighted in red, with index values greater than 115 (+15%) highlighted in green, to show the more extreme variations in the index value.

One of the most noticeable results on the export side is that EU containerised exports to East Asia, the largest world region as defined here, exceeded 2018 and 2019 levels for the majority of 2020, continuing into 2021, with relatively high volumes seen in the third and fourth quarters of 2020, as well as in March 2021. Other regions show decreases compared to previous years, and follow a similar pattern to each other, with the biggest decreases in the middle of the 2020 (April-August), with stronger performance in the final months, building up to the end of the year.

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TONNES(K)
N. Africa	99.0	104.4	96.4	80.9	76.7	86.7	92.5	85.5	103.5	88.3	86.9	90.3	6,190
Oth. Africa	100.7	110.1	94.4	91.7	75.5	110.8	89.0	92.5	100.8	86.9	106.7	106.4	10,528
Middle East	93.9	107.7	91.7	96.8	91.4	97.0	95.6	88.9	103.0	87.8	102.0	112.3	11,419
Central Asia	86.2	70.3	82.9	46.5	57.7	102.4	123.4	88.5	99.9	89.1	93.3	98.5	1,733
East Asia	108.8	103.2	91.5	104.1	95.7	105.3	115.4	111.7	120.1	109.3	120.7	118.6	50,532
N America	95.7	110.0	109.5	96.2	73.3	84.9	89.5	85.2	104.4	98.3	105.8	112.4	25,163
C&S Amer.	88.8	112.0	99.5	83.4	64.6	95.5	91.2	72.5	101.1	105.4	105.7	125.5	10,370
Oceania	108.3	103.2	122.8	91.8	85.2	91.5	86.7	83.5	82.5	107.2	86.3	119.4	3,715
Other	69.7	71.1	76.6	60.7	75.4	61.1	69.7	67.9	103.9	88.3	87.1	91.2	920

Table 9: Central European Containerised *Exports, 2020* Index Values vs 2018/19, 2020 Tonnes (000s)

Table 10: Central European Containerised Exports, 2021 Index Values vs 2018/19, 2020 Tonnes (000s)

REGION	JAN	FEB	MAR	TONNES(K)
North Africa	86.8	107.3	94.3	1,623
Other Africa	98.3	101.8	104.0	2,692
Middle East	91.9	97.3	103.8	2,902
Central Asia	80.6	72.4	94.7	420
East Asia	98.5	101.2	121.9	12,633
N America	98.3	106.5	116.6	6,966
C&S Amer.	115.3	111.2	107.4	2,822
Oceania	77.3	110.5	151.4	1,082
Other	210.2	187.5	207.9	659

More detailed analysis of the data shows that the most important trade flow explaining the increase in Central European exports to the Far East is from the NST commodity '05.1', which is paper, pulp and wood. Most of the trade is from Germany and Belgium to China. Other key exports which grew in 2020 are machinery, food products and metal products. This traffic growth does not appear to be a 2020 data spike, related to the COVID crisis, but a continuation of a growth trend in the EU-China market that had already been established a few years earlier.

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TONNES
N. Africa	128.1	124.2	120.3	99.6	78.5	99.3	95.4	105.4	114.6	102.2	110.5	109.7	2,566.74
Oth. Africa	106.1	109.6	121.4	64.1	119.2	100.3	90.9	97.7	76.5	89.8	95.0	99.9	9,615.65
Mid. East	72.2	73.7	99.9	112.6	67.7	137.3	73.6	78.5	147.2	113.6	76.5	93.7	5,043.88
Cent Asia	68.5	90.5	124.0	106.4	63.0	75.8	84.6	82.3	77.9	102.0	86.5	110.8	1,027.20
East Asia	104.6	95.5	88.6	91.9	82.1	91.4	92.5	89.0	104.3	92.0	102.6	107.7	52,557.97
N America	127.4	96.8	107.6	141.7	83.0	68.0	77.2	84.5	101.5	84.9	78.7	71.8	15,553.38
C&S Amer	80.8	91.1	89.7	93.0	77.9	97.8	75.7	83.8	93.2	89.4	99.1	106.5	12,969.34
Oceania	87.2	32.9	87.0	62.3	84.0	105.6	85.7	50.9	173.4	68.4	65.0	94.8	1,266.74
Other	80.2	83.9	87.9	96.3	78.2	93.4	90.9	85.9	96.2	99.5	105.9	102.2	2,627.13

Table 11: Central European Containerised Imports, 2020 Index Values vs 2018/19

Table 12: Central European Containerised Imports, 2021 Index Values vs 2018/19

REGION	JAN	FEB	MAR	TONNES
North Africa	110.1	94.8	136.6	715.62
Other Africa	81.9	87.7	115.2	2,280.63
Middle East	80.9	77.3	115.0	1,154.77
Central Asia	73.5	90.5	92.4	279.71
East Asia	89.1	93.0	111.2	13,874.75
N America	83.3	84.7	130.5	4,134.58
C&S Amer.	70.0	81.2	96.0	3,106.67
Oceania	68.4	25.0	126.2	285.70
Other	72.0	68.8	77.0	570.11

In the import direction, East Asia to Central Europe is the largest single trade flow, accounting for close to 40% of total containerised imports. For this segment, it can be seen that the year began with an increase of 4.6% in January, but then with the start of the pandemic affecting Chinese exports there was a sequence of months up to April 2020 with approximately a -10% decrease in trade volume. As the impact spread the largest impact was then recorded in May 2020 with a -18% decrease in volume, recovering somewhat in June, and staying close to 90% of its normal level up to August. However from September 2020 onwards East Asian import volumes were close to or in excess of their historical levels, ending the year nearly 8% higher for December 2020. In 2021, volumes from East Asia were initially low, but recovered in March.

Imports from North America were higher in the first quarter of 2020, but they remained under the 85% level for most of the rest of year. Like the Far East sector, they were low in January and February 2021, but recovering in March. Amongst the medium-sized geographical markets, North Africa out-performed previous years in 2020, and the rest of Africa was also been close to 2018 and 2019 levels, helping to offset losses in other regions.

## 2020 and 2021 Port Traffics

Having looked at the underlying pattern of trade flows for containerised goods, we next compare the trends with port traffic data (collected from port authorities).

Table 13 shows the 2019 container volumes for the largest ports serving the hinterland region represented by the eight selected Central European countries. Port traffic volumes are measured in total TEU: loaded and empty, shortsea and deep sea, import, export and transhipment as recorded by Eurostat in 2019<sup>2</sup>. This table has been used as the basis for selecting the largest ports serving this hinterland.

Port		Total TEU 2019		
Rotterdam	NL	13,492,837		
Antwerp	BE	11,676,076		
Hamburg	DE	9,281,987		
Bremerhaven	DE	4,849,676		
Gioia Tauro	IT	4,154,239		
Le Havre	FR	2,762,743		
Genoa	IT	2,326,173		
La Spezia	IT	1,478,883		
Marseille	FR	1,454,530		
TOTAL 9 Ports		51,477,144		

Table 13: Container traffic through main container ports (NL, BE, DE, IT, FR)

Source: Eurostat.

According to the latest reports from these ports, the following outcomes in terms of container throughputs, have been recorded in 2020 and 2021:

#### Rotterdam (NL)

*2020 Half year results:* 2020 half year container throughput (in tonnes) was down 3.3% compared to the same period in 2019, and 7% down in TEU.

*2020 Nine month results:* The volume of containers handled in Rotterdam up to and including Q3 2020 fell by 2.1% in tonnes compared to the same period in 2019, and by 4.7% in TEU.

*2020 Final results*: Rotterdam's total container throughput for the year was 3.2% lower in 2020 than in 2019, measured in TEU. Containerised tonnage was down by 1.2% and the number of containers fell by 3.9%.

 $<sup>^{2}</sup>$  Eurostat port throughput figures differ from the statistics published by the ports in certain instances, but the sum across these selected ports is similar according to both sources.

*2021 First quarter results:* First quarter results for Rotterdam show that container TEU volumes are up by 4.5% compared to the same period of 2020, while containerised tonnes were down by 0.7%.

#### Antwerp (NL)

*2020 Half year results:* 2020 half year throughput in containerised tonnes was down 0.3% compared to the same period in 2019, and up 0.4% in TEU.

*2020 Nine month results:* Throughput for the first nine months of 2020 was down 0.2% in container TEU, and down 1% in containerised tonnes.

*2020 Final results:* Antwerp's total container throughput was up by 1.3% in 2020, compared to 2019, and containerised tonnes were up by 0.2%.

*2021 First quarter results:* First quarter results for Antwerp show that container TEU volumes were up by 2.3% compared to the same period of 2020, and by 0.6% measured in tonnes, standing at 3.1m TEU.

#### Hamburg (DE)

*2020 Half year results:* Based on figures published by HHLA, 2020 half year container throughput (in TEU) was 12.4 percent down at 4.1 million TEU. Eurogate figures for Hamburg show a decrease of 11.5% to 960,000 TEU.

*2020 Nine month results:* Based on figures published by HHLA<sup>3</sup>, container throughput for the first nine months (in TEU) was 11.2 percent down at 5.1 million TEU.

*2020 Final results:* Hamburg's total container throughput was down by 7.9% in 2020, measured in total TEU.

*2021 First quarter results:* First quarter results for Hamburg show that container TEU volumes are up by 1.8% compared to the same period of 2020, standing at 2.2m TEU.

#### Bremen/Bremerhaven (DE)

*2020 Half year results:* 2020 half year container throughput (in tonnes) was down 1.7% to 26.4 million containerised tonnes, compared to the same period in 2019, and down 4.8% in TEU at 2.36 million TEU. (Eurogate Wilhelmshaven figures were down 38.5% to 222,000 TEU)

*2020 Nine month results:* Container throughput for the first nine months of 2020 are down 5.6% to 3.528 million TEU.

*2020 Final results:* Final results for Bremen/Bremerhaven in 2020 show a decrease of 1.8% compared to 2019 TEU volume.

2021 First quarter results: Not yet available.

#### Gioia Tauro (IT)

*2020 Half year results:* 2020 half year container traffic was up 17% in TEU (comparing the Assoporti figure for the first half 2020 with half of the annual figure for 2019. The

<sup>&</sup>lt;sup>3</sup> HHLA operates the largest container terminals in Hamburg. These figures also include volumes for HHLA terminals in Odessa(UA) and Tallinn (EE).

Assoporti figure for 2019 is 2.5 M TEU, whereas Eurostat recorded 4.1 M TEU over the same period).

*2020 Nine month results:* Not yet available for third quarter.

*2020 Final results:* Gioia Tauro recorded an increase of 26.6% in TEU throughput for 2020, compared to the (Assoporti) figure for 2019.

*2021 First quarter results:* First quarter results for Gioia Tauro show that container TEU volumes are down by 17% compared to the same period of 2020, standing at 627,548 TEU (Assoporti). (Note: Gioia Tauro's throughput had increased significantly in 2020.)

Le Havre (FR)

*2020 Half year results:* 2020 half year container traffic was down 27%, to 1.1 M TEU (10 million containerised tonnes).

*2020 Nine month results:* Figures for (note) the first *eight* months of 2020 show a decrease of 28% in tonnage to 13.72 million containerised tonnes, and a 25% decrease in the number of containers to 1.4 million TEU.

*2020 Final results:* Haropa figures for 2020 showed a decrease of 14.4% compared to 2019, ending the year with a throughput of 2.4 million TEU.

2021 First quarter results: Not yet available.

#### Genoa (IT)

*2020 Half year results:* 2020 half year container traffic was down 8.3% in tonnes at 11.8 million tonnes, and 10.5% down in TEU at 1.213 million TEU.

*2020 Nine month results:* results for the first nine months of 2020, show that Genoa's container traffic was down 7.7% in tonnes, at 17.6 million tonnes, and down 10% in TEU at 1.819 million TEU.

*2020 Final results:* 2020 full year traffic at Genoa was down 10% in TEU, reaching 2.35 million TEU.

**2021 First quarter results:** First quarter results for Genoa show that container TEU volumes are down by 1% compared to the same period of 2020, standing at 625,871 TEU.

La Spezia (IT)

*2020 Half year results:* 2020 half year container traffic was down by 22% in TEU (comparing the Assoporti figure for first half 2020 with half of the annual figure for 2019).

2020 Nine month results: Not yet available for third quarter.

*2020 Final results:* 2020 full year traffic was down 16.7%, reaching 1.2 million TEU at the end of the year.

*2021 First quarter results:* First quarter results for La Spezia show that container TEU volumes are up by 6% compared to the same period of 2020, standing at 328,268 TEU.

Marseille (FR)

*2020 Half year results:* 2020 half year container traffic decreased by 15.7% at 1.108 million containerised tonnes, compared to the same period 2019, and by 16.3% in TEU, to 621,253 TEU.

2020 Nine month results: Not yet available for third quarter.

*2020 Final results:* 2020 full year traffic was down by 9.4% in TEU, reaching 1.3 million TEU at the end of the year.

2021 First quarter results: Not yet available.

Applying these change factors to the TEU throughputs for the nine ports, including estimates for the missing figures, suggests that total port volumes are about 1.5% higher in 2021 than the equivalent three months of 2020. The trade data analysis suggested that volumes were up by around 1.4%, so the two datasets are still in agreement.

It can also be seen that the method used here for analysing containerised volumes based on trade data has correlated well with port data for all the time periods analysed, since the beginning of the pandemic. The changes are shown for the cumulative year-to-date totals, relative to the previous year.

Table 14: Comparison of Traffic and Trade Data Results : Q2-Q4 2020, Q1 2021

Item	2020 Q2 Result	2020 Q3 Result	2020 Q4 Result	2021 Q1 Result
Trade Data	-5.1%	-6.3%	-3.4%	+1.4%
Port Data	-5.4%	-6.1%	-3.0%	+1.5%

*Results show the percentage change in volume for the given period compared to the same period in the year before. Q*1= *three months total, Q*2=*six months total, Q*3= *nine months total, and Q*4=*full year.* 

### Conclusions

The aim of this article was to investigate and quantify the impact of the COVID crisis on container trade to and from Central Europe (trade flows to and from eight EU countries: Belgium, Netherlands, Luxembourg, France, Germany, Italy, Austria, and Czech Republic).

Using a combination of data from port authorities and from trade statistics, and applying our model of containerisation rates, we conclude that the net change in container volume for the first quarter of 2021 is between +1.4% and +1.5%, compared to the same period of 2020, with most of the growth occurring in March 2021.

At the end of 2020 there had been signs that economic recovery was underway but with the extended lockdown in most of Europe during the first quarter of 2021, and against a backdrop of disruption to worldwide container shipping schedules, trade growth rates are still lower than might have been expected. Looking ahead, the higher figures recorded in March 2021 suggest that the second quarter results will show signs of a

stronger recovery. However, the crisis is still far from over, and the shipping sector is still experiencing a considerable level of operational disruption, resulting in high freight rates. We will continue to monitor trade using this method, and continue to report our findings.

# References

- 1. WORLDNET Final Report(D11), 2009, NEA, OSC, IWW, MKMETRIC, TINA Vienna, DEMIS. A study on behalf of the European Commission, DG-TREN, FP6.
- 2. NTP Research (2020), "WORLDNET Revisited Part 1", The Hague, Netherlands.
- 3. NTP Research (2020), "WORLDNET Revisited Part 2 European Container Volumes", The Hague, Netherlands.
- 4. NTP Research (2020), "WORLDNET Revisited Part 3 Containerisation Rates", The Hague, Netherlands.
- 5. NTP Research (Aug 2020), "European Container Trade 2020 Half Year", The Hague, Netherlands.
- 6. NTP Research (Nov 2020), "European Container Trade 2020 Q3", The Hague, Netherlands.
- 7. NTP Research (Feb 2021), "European Container Trade 2020 Q4", The Hague, Netherlands.